AMENDMENTS TO SPECIFICATION

♦ **Headers**

Please insert the following headers into the specification at the indicated locations:

Page 1, before line 1 (but after the title):

–BACKGROUND OF THE INVENTION

1. Field of the Invention–.

Page 1, between lines 2 and 3:

–2. Description of Related Art–.

Page 1, between lines 24 and 25:

–SUMMARY OF THE INVENTION–.

Page 3, between lines 20 and 21:

–BRIEF DESCRIPTION OF THE DRAWINGS–.

Page 3, between lines 26 and 27:

–DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS–.

♦ **Other Changes to the Specification**

Please amend the following paragraphs of the specification:

Page 1, line 27, delete in its entirety.

Page 4, line 30 to Page 5, line 10:

Figure 3b shows an intermediate step in determining the lookup table. The lookup table according to Figure 3b was generated from the lookup table according to Figure 3a by ~~EXORing~~

XORing each value of the first line of the table from Figure 3a with random number $R_1 = 11$. Thus, ~~EXORing~~ XORing the value 00 of the first line and first column of the table from Figure 3a with the number 11 yields the value 11, which is now the element of the first line and first column of the table of Figure 3b. The remaining values of the first line of the table shown in Figure 3b are determined accordingly from the values of the first line of the table shown in Figure 3a and random number $R_1 = 11$. The table shown in Figure 3b could already be used as a disguised lookup table for processing secret data likewise disguised with random number $R_i = 11$. The result would be the plaintext values to be read in line 2 of the table from Figure 3b.

Page 5, lines 14-16:

If the table according to Figure 3c is to be disguised further or yield as output values likewise disguised values rather than plaintext values, one applies a further ~~EXOR~~ XOR operation with further random number R_2.

Page 5, lines 17-24:

Figure 3d shows the result of applying said further ~~EXOR~~ XOR operation. In said operation the elements of the second line of the table according to Figure 3c are each ~~EXORed~~ XORed with random number $R_2 = 10$. The element in the second line and the first column of the table according to Figure 3d thus results from ~~EXORing~~ XORing the element in the second line and first column of the table according to Figure 3c with random number $R_2 = 10$. The further elements of the second line of the table according to Figure 3d are formed accordingly. The first line of the table according to Figure 3d is adopted by Figure 3c unchanged.

Page 5, lines 25-28:

With the table shown in Figure 3d one can determine likewise disguised output data from disguised input data. The thus determined disguised output data can be supplied to further operations for processing disguised data or one can determine plaintext data therefrom by ~~EXORing~~ XORing with random number $R_2 = 10$.

Page 5, line 29 to Page 6, line 13:

Use of the table shown in Figure 3d makes it possible to perform nonlinear operations with disguised secret data and protect said secret data from unauthorized access. The security-relevant operations themselves are still also protected from un-authorized access since differently disguised functions can be used at every execution of the operations and the security-relevant operations themselves cannot be inferred even if the disguised functions could be determined. After conversion to plaintext, however, both the original security-relevant operations and the operations performed with the aid of disguised functions yield identical results. For example, input value 00 yields output value 01 according to the table in Figure 3a. In order to check whether the disguised table shown in Figure 3d yields the same output value one must first ~~EXOR~~ XOR input value 00 with random number $R_1 = 11$. As a result of said combination one obtains the value 11. In order to determine the plaintext from said output value one must ~~EXOR~~ XOR the output value with random number $R_2 = 10$. As a result of said combination one obtains the value 01 which exactly matches the value determined with the aid of the table shown in Figure 3a.

Page 6, lines 14-19:

Disguising the security-relevant operations of the input values can be effected not only by ~~EXORing~~ XORing but also by other suitable types of combination, for example modular addition. Furthermore, the invention is not limited to the application of nonlinear functions represented by means of lookup tables. One can also use any nonlinear and even linear functions for which a suitable disguised function can be determined.